

## Joint Plan Team Total Catch Accounting Working Group

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Other participants: Melanie Brown and Jeff Hartman (AKRO)

The objective of the Working Group is to assist the Plan Teams in making recommendations for changes deemed necessary to comply with the Magnuson-Stevens Act (MSA) and the National Standard Guidelines, specifically related to total catch accounting (TCA). The National Standard Guidelines for the MSA require accounting for all removals. The Working Group identified its first priority as providing comments on an advance notice of proposed rulemaking (ANPR) to revise NMFS guidelines for National Standard 1 (NS1), because the deadline for public comments is August 1, which is prior to the next meeting of the joint groundfish plan teams. This report is organized according to the Working Group's agenda (attached).

### 1. NS1

Jeff Hartman provided background on an early opportunity for NMFS AKRO staff to provide comment to NOAA Fisheries HQ on its plans to publish an ANPR for NS1. The Working Group discussed whether the uncertainty caused by the ANPR should postpone the Plan Teams' attempts to comply with the 2009 National Standard 1 Guidelines. *The Working Group recommended no changes to current practices for total catch accounting (TCA) during the 2012 stock assessment cycle* because the NS1 Guidelines are being evaluated and may be revised (see next item also).

### 2. AKRO paper on research removals

Jeff Hartman and Melanie Brown reported on a planned discussion paper on total catch accounting for research removals of groundfishes. The paper, originally planned for June SSC review, is now planned for September Plan Team review and October SSC review. The authors plan to incorporate SSC and Council comments on the ANPR from June 2012 into the September draft. Resolution of TCA issues could be delayed as a result of the ANPR.

### 3. Data

- a) What are the official "catch" data? In August 2011 the Groundfish Plan Teams recommended that total catch should, in principle, be taken into account in the stock assessment determinations of OFL and ABC so that downward adjustments of the TAC are not necessary. However, the Plan Teams also felt that existing estimates of removals other than those taken in the groundfish fisheries were too preliminary to be used for determining OFLs and ABCs in November 2011 for the 2012/2013 assessment cycle. In addition, the Teams felt that the Council should not make allocative decisions between research removals and commercial catch. As of 2011, NMFS (through AKFIN ) provides estimates of total catch available to authors for incorporation into the stock assessments for the groundfish fisheries by October 1 each year, although it should be noted that these estimates do not currently include all sources of removal; for example, Pacific cod catches in the BSAI crab fishery are not included.

The Working Group considered a June 2011 discussion paper prepared by Grant Thompson (reference topic #3 in that paper). When considering incorporation of "other" catches in the SAFE reports, the Working Group noted the importance of distinguishing between:

- listing other catches but not using them for anything,
- using other catches to estimate reference fishing mortality rates (F40%, F35%, etc.),

- using other catches to estimate reference harvest amounts (maxABC, OFL, etc.) given the reference fishing mortality rates, and
- including other catches in the total against which harvest specifications are compared.

If "other" catches are to be used to estimate maxABC, OFL, etc., how should this be done? One idea proposed by the GOA Plan Team at its November 2011 meeting is to subtract "other" catches from the begin-year biomass. This approach would not be consistent with how most other harvest calculations are made, but it would be simple to apply for stocks managed under Tiers 5 or 6. The Working Group, however, did not identify a method for applying this approach to stocks with age-structured models.

- b) Time series of research, subsistence, personal use, recreational, and exempted fishing permit removals – Jason Gasper confirmed that AKRO (through AKFIN) would complete the accounting of 2010 and 2011 "other" catch removals and have it available on AKFIN October 1. An accurate time series for these data is currently unavailable because data prior to 2010 are incomplete for some historical surveys (e.g., State of Alaska and RACE). An outstanding issue is what to do about years in which surveys occurred but no data have been entered into the AKRO database. Prior to the 2014 stock assessment cycle, AKRO will query providers for missing data to help establish a times series of removals.
- c) Other data sets – The Working Group reviewed the history of Halibut Fisheries Incidental Catch Estimation (HFICE) data. In August 2011 the Teams recommended that all authors provide the 2001-2010 HFICE and a dataset including 2010 research, subsistence, personal use, recreational, and exempted fishing permit removals as an appendix to each assessment chapter in November 2011, but the Teams did not use these data for determining OFLs and ABCs in November 2011 for the 2012/2013 assessment cycle. Since these estimates are preliminary and the Teams have not reviewed the complete database or assessed the potential effects on determination of OFL and ABC for each stock, further analysis is needed before the Teams can recommend incorporation of these estimates in their OFL/ABC recommendations. The Teams raised some issues regarding how authors should use the databases in the future: 1) how to use catch estimates with no size/age composition information in the models (similar issues occur in the Pacific halibut stock assessment), 2) how the AKRO could or would incorporate these estimates into in-season management (to avoid overharvesting), and 3) development of a single catch estimation time series incorporating all data components. The Teams recommended that they investigate the implications of estimated removals from sources other than the groundfish fisheries on ABC estimation in September 2012. The Teams would then consider whether and how such estimates would be used in stock assessments in November 2012 for the 2013/2014 assessment cycle. The Working Group however noted that this would be a huge undertaking and recommended taking no action until issues surrounding the ANPR for NS1 Guidelines are clarified.

The Working Group considered the HFICE as a partial time series and an indicator of groundfish catch in the directed IFQ halibut fishery, but not a complete estimate that should necessarily be added to existing Catch Accounting System (CAS) estimates. Removals generated by major non-groundfish fisheries (BSAI crab and Pacific halibut) are generally incomplete. Reporting non-compliance is still a management and enforcement issue for past years, even if resolved for current years. The Working Group concluded that HFICE would not be included in the CAS and that extending it beyond 2011 was not necessary due to data from the observer restructuring being incorporated into the CAS in 2013. Further, programming and maintenance of HFICE requires significant staff and budgetary resources from both the AKRO and the AFSC that, given the priority of observer restructuring, is not feasible.

The Working Group recommended that the 2001-2011 HFICE appendix continue to be included in each assessment chapter until these interim indicators of groundfish catch in the halibut fishery are replaced by data collected under the restructured observer program. The Working Group recommended no further action on HFICE.

The Working Group discussed total accounting of Pacific cod caught for bait purposes in the crab fishery. Pacific cod catch in crab fisheries was first required to be reported on crab tickets in 2011. Compliance appears to be low and reported catches are likely underestimates. Fish ticket reports of Pacific cod caught for bait in the BSAI crab fishery will be included in the “other” catch data set available to stock assessment authors.

4. Stock assessment use
  - a) Mary Furuness compiled a table (attached) listing which annual harvest specifications accommodate state removals and the approach adopted (e.g., PWS pollock, GOA Pacific cod, BSAI Pacific cod, BS and AI sablefish).
  - b) and c) For all SAFE chapters, the Working Group recommended that authors continue to report “other” removals in an appendix but not apply those removals in the models.
  - d) The Working Group recommends that further Plan Team discussion of how “other” removals would affect determination of OFL and ABC be tabled, pending potentially revised NS1 guidance.
  - e) The Working Group discussed whether it would be beneficial to schedule a CIE review of how best to incorporate these data sets into stock assessments. Because CIE reviewers are often unfamiliar with the MSFCMA, the NS1 guidelines, or management of BSAI and GOA groundfish, the Working Group instead recommended a joint SSC/GPT workshop, perhaps in February 2013 or some other time outside the August – December assessment cycle. The Working Group noted that one cannot address how to incorporate the databases into the stock assessment without also discussing how the fishery is managed. Further interpretation of NS1 guidelines is necessary for incorporation of “other” catch data into stock assessments and harvest specifications.
  - f) The Working Group recommended no new Instructions to Authors, but did recommend continued inclusion of appendices from 2011.
5. Next Steps. The Working Group will discuss/decide whether to convene again after it reviews the SSC recommendations on this topic from its June 2012 meeting. When it is appropriate to resume the TCA discussion, the following outstanding issues will need to be resolved (these are identified above, but are repeated here for convenience):
  - When considering use of “other” catches (i.e., catches other than those taken in the groundfish fishery) in assessment and management, it will be necessary to distinguish between:
    - i. listing those catches but not using them for determination of catch limits,
    - ii. using those catches to estimate reference fishing mortality rates (F40%, F35%, etc.),
    - iii. using those catches to estimate reference harvest amounts (maxABC, OFL, etc.) given the reference fishing mortality rates, and
    - iv. including those catches in the total against which harvest specifications are compared.
  - It will also be necessary to determine whether the use of “other” catches should differ depending on the source of the removals (e.g., should research catches be treated differently from catches taken in non-groundfish fisheries?).

- In the event that “other” catches will be used to estimate either reference fishing mortality rates or reference harvest amounts, methods will need to be devised for doing so, noting that these methods will need to address all tiers.
- What, if anything, to do with the HFICE time series (2001-2011).
- What to do about *years* for which “other” catches were known to have occurred, but for which no direct estimate of magnitude is available (e.g., years in which surveys occurred but no data have been entered into the AKRO database).
- What to do about *sources* for which “other” catches were known to have occurred, but for which no direct estimate of magnitude is available (e.g., catches taken in non-groundfish fisheries).

ATTACHMENT: Annual harvest specifications that accommodate state removals and the approach adopted (Source: AKRO)

BSAI		
BSAI stock assessments	Federal TAC	State GHL
Eastern Bering Sea Pollock	$\leq$ ABC	none
Aleutian Islands Pollock	$\leq$ ABC	none
Bogoslof Island Pollock	$\leq$ ABC, set for incidental catch amounts	none
BSAI Pacific cod	$\leq$ 97% of ABC	3% of ABC
AK Sablefish <sup>1</sup>	$\leq$ ABC	5% of BS and AI TAC
BSAI Yellowfin Sole	$\leq$ ABC	none
BSAI Greenland turbot	$\leq$ ABC	none
BSAI Arrowtooth flounder	$\leq$ ABC	none
BSAI Kamchatka flounder	$\leq$ ABC	none
BSAI Northern Rock Sole	$\leq$ ABC	none
BSAI Flathead Sole	$\leq$ ABC	none
BSAI Alaska Plaice	$\leq$ ABC	none
BSAI Other Flatfish	$\leq$ ABC	none
BSAI Pacific Ocean Perch	$\leq$ ABC	none
BSAI Northern Rockfish	$\leq$ ABC	none
BSAI Blackspotted and Rougheye rockfish	$\leq$ ABC	none
BSAI Shortraker rockfish	$\leq$ ABC	none
BSAI Other Rockfish	$\leq$ ABC	none
BSAI Atka Mackerel	$\leq$ ABC	none
BSAI Skates	$\leq$ ABC	none
BSAI Sculpin	$\leq$ ABC	none
BSAI Sharks	$\leq$ ABC	none
BSAI Squids	$\leq$ ABC	none
BSAI Octopus	$\leq$ ABC	none

<sup>1</sup>Sablefish State GHL is set by the State as 5% of the Federal BS and AI TAC. However, this amount is not deducted from the Federal TACs.

GOA		
GOA stock assessments	Federal TAC	State GHL
GOA Pollock	$\leq$ ABC	set prior to Federal ABC
GOA Pacific cod	$\leq$ 75% of ABC	25% of Federal ABC
AK Sablefish	$\leq$ ABC	none
GOA Shallow-water Flatfish	$\leq$ ABC	none
GOA Deep-water Flatfish	$\leq$ ABC	none
GOA Rex Sole	$\leq$ ABC	none
GOA Arrowtooth Flounder	$\leq$ ABC	none
GOA Flathead Sole	$\leq$ ABC	none
GOA Pacific Ocean Perch	$\leq$ ABC	none
GOA Northern Rockfish	$\leq$ ABC	none
GOA Shortraker rockfish	$\leq$ ABC	none
GOA Dusky Rockfish (PSR)	$\leq$ ABC	none
GOA Rougheye and Blackspotted rockfish	$\leq$ ABC	none
GOA Demersal Shelf Rockfish	$\leq$ ABC	none
GOA Thornyheads	$\leq$ ABC	none
GOA Other Rockfish (other slope)	$\leq$ ABC	none
GOA Atka Mackerel	$\leq$ ABC	none
GOA Skates	$\leq$ ABC	none
GOA Sculpin	$\leq$ ABC	none
GOA Sharks	$\leq$ ABC	none
GOA Squids	$\leq$ ABC	none
GOA Octopus	$\leq$ ABC	none

1. National Standard 1
  - a. Headquarters recommendation/guidance to Alaska and Council
  - b. Is there or will there be ACL interpretation in writing (does ABC = ACL)
2. AKRO discussion paper for October SSC meeting
  - a. Jeff/Melanie authors
  - b. Examines consistency of AK accounting of SRP and EFP with NS1?
3. Data Interpretations
  - a. What is official "catch" data
    - i. AKRO CAS estimates?
    - ii. Or "proxy" data sets generated independently?
  - b. Time series of research catches –
    - i. Yearly updates
    - ii. 2010 gathered in 2011, AKFIN is developing database
    - iii. Stock assessment authors need time series to effectively work with data. Is it possible to build up or can we at least capture the majority of it through a compilation of available data?
    - iv. Years
    - v. Data ownership – AKRO catch accounting branch annually provides to AKFIN.
    - vi. Access – AKFIN
  - c. Other data sets
    - i. Halibut Fishery Incidental Catch Estimates (HFICE) - The Plan Teams recommended that the authors consider issues for sablefish where there is overlap between the data sources in these HFICE estimates. In general, for all species, it would be good to understand the unaccounted-for catches and the degree of overlap between the CAS and HFICE estimates and to discuss this at the September 2012 Plan Team in.
      1. Who will generate HFICE estimates and take ownership
        - a. Currently working group is planning to compute 2011 estimates and then writing up time series (2001-2011) as a Tech Memo
        - b. If not incorporated in CAS then what are the recommendations to authors
        - c. Is/was HFICE a one-time analysis
      - ii. Removals generated by other fisheries(e.g., Pacific cod taken for use as bait in the crab fisheries)
4. Stock assessment use
  - a. Should we survey all current assessments that may already make concessions of ABC/TAC – ex. GOA Pollock?
  - b. Need to clarify that this must be incorporated in all assessments including non-modeled assessments (esp Tier 6 – avg catch = ABC)
  - c. Potential options for incorporating these estimates
    - i. Include in the model as part of catch history
      1. What are the effects
    - ii. Run projections of ABC with research catches included and compare to current projections (no research catches included)
    - iii. Develop a risk assessment outside of model but included in assessment – somehow evaluates model derived ABC recommendations in relation to magnitude of "other catches"
    - iv. Appendix – not in the model
  - d. Interaction with OFL and ABC, TAC for the Council/Secretary of Commerce.

- e. Is there potential to have a CIE review of how to incorporate these data sets in stock assessments?
  - f. Instructions to Authors
- 5. September 2012 Plan Team discussion
  - a. Presenter?
  - b. Format?
    - i. Needs to inform Teams of issue
    - ii. How do we recommend anything under heading 4 without guidance from heading 1?